Patricia Lewis

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Date: January 5, 2004

Signed:
Peter K. Trzyna (Reg. No. 32,601)

PATENT

Paper No. #20 3-5-04

File: Newmrkt-P98-1

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:	
Anthony F. Herbst and Wayne F. Perg	Group Art Unit: 2162
For: Digital Computer System and Methods for Managing a Synthetic Investment and Risk Management Fund	Examiner: Geffrey R. Achers
USSN: 09/197,908	
Filed: November 23, 1998	

REPLY BRIEF

As an overview in reply to the Examiner's Answer, it is respectfully submitted that the Examiner has essentially conceded the points raised in the Brief, but left un-addressed in the Answer. With due respect, the few pages of cursory Answer also do not reveal an understanding of the invention, as is more particularly discussed below. This accounts for an enormous gap between the cited art and the claimed invention. Many points in the Brief have not been answered, and the Reply deals only with issues raised in the Answer.

Turning now to ***Section (7) Groupings of Claims***, the Examiner disagrees with the Applicant's statement that the claims do not stand or fall together on the grounds that "the claims are so similar that a very small number of features distinguish them."

It is respectfully submitted that the Examiner's belief that "small number of features distinguish them" is not the statutory standard. To the contrary, the Examiner's approach is prohibited and contrary to the C.F.R. or MPEP as well. The U.S. Patent and Trademark Office cannot withhold a patent based on an Examiner's belief that claims have "small number of features distinguish them." Applicant's statement that the claims do not stand or fall together is proper under the MPEP and the law.

More so, the Examiner's belief is revealing. The Examiner cites no evidence to support his belief. It is respectfully submitted that this belief reveals not only an error of law; it also reveals a lack of understanding of the claimed invention and the features in the claims of the invention. A lack of understanding of the invention is particularly revealed when the Examiner asserts (***Section (11) Response to Arguments***, paragraph 1) that: "Broka teaches demand schedules (bid/ask pricing)...."

Bid-ask pricing *not* a teaching of a <u>demand schedule</u>. More importantly, bid-ask pricing is inconsistent with the present invention because, in the present invention, the comparison of the supply and demand schedules produces a *single* rate of return from which the system then computes a *single* price for the preferred return instrument for both buyers and sellers. Therefore,

there is no, and can be no, bid/ask pricing because bid/ask pricing requires *two* prices, one for buyers and a different one for sellers.

A bid-ask spread exists only in broker/dealer markets, where the spread between the bid and the ask price represents the broker/dealer's profit margin for acting as a market maker. The broker/dealer stands ready to purchase some amount of securities at the (lower) bid price and sell some amount of securities at the (higher) ask price. The costs, inefficiencies and other problems that the present invention addresses are the result of the fact that the secondary (resale) market for preferred-return securities is a *broker/dealer* market and the primary (original-issue) market for preferred-return securities is a *broker/underwriter.*

The present invention reduces costs and increases efficiency by creating a computerized auction market for the primary (original issue) and secondary (resale) markets that eliminates the functions of broker/dealers (the market makers in the secondary, or resale, market) and broker/underwriters (the market makers in the primary, or original issue, market). It replaces the costly human market makers (middlemen) with an efficient computerized auction market.

The cited art relied upon by the Examiner retains the broker/dealers and broker/underwriters that are the sources of the costs and inefficiencies today's market for preferred-return securities. Thus, technology in support of these regimes retain the costs, inefficiencies and other problems that the present invention eliminates.

Therefore, it follows that by asserting that the cited art teaches demand schedules by teaching bid-ask pricing, the Examiner reveals:

1. With all due respect, a lack of understanding of the claimed invention and its components; and,
2. That the cited art does not teach or suggest the present invention because the cited art retains the dealers and underwriters whose functions are eliminated by the auction market of the present invention.

Turn now to ***Section (10) Grounds for Rejection***, where the Examiner rejects Claims 1-20 as unpatentable over Hawkins (US Pat. No: 6,029,146) in view of Lawrence (US Pat. No. 5,915,209) and further in view of Broka (US Pat. No: 5,809,483). See the Brief on this subject, but in the Answer, in giving his reasons for the rejection, the Examiner errors in failing to assert that the cited prior art teaches what is truly claimed.

Look for example at claim 1, which requires: 1) comparing the (demand and supply) schedules to produce a (single) current preferred return for each of the corresponding instruments; and then 2) using the current preferred return in the step of "computing a price for each said instrument."

Of course, the cited prior art cannot teach these steps because it does not teach the required prior steps in claim 1 of the present invention of: 1) computing a demand schedule for each of said instruments; and, 2) computing a supply schedule for each of said instruments. Indeed, the Examiner does not even contend that the prior art teaches the computing of a demand schedule for each of said instruments.

The Examiner at least asserts that: "Hawkins teaches the trading of volumes of securities (Col. 8, lines 14-31)(Fig 4) and an associated supply schedule" – but this assertion also does not square with the claim requirement of computing of a supply schedule *for each of said instruments*. More so the Examiner's assertion is incorrect. Hawkins does not teach a <u>supply schedule</u>, let alone the computing of a <u>supply schedule for each of said instruments</u>. In Col. 8, lines 14-31 Hawkins says that: "Fig 4 depicts an example of a transaction being processed according to the present invention. For example, originating broker 100 (Company A in Hong Kong) places an order with executing broker 101 (Company B in the Philippines) to purchase 1,000 shares of XYZ securities ...." Nowhere in the cited reference regarding the teaching of "an associated supply schedule" do either of the words "supply" or "schedule" appear – let alone the any mention of a "<u>supply schedule</u>." The Board can take notice of the plain and ordinary meaning

of the claim requirement, e.g., any introductory economics textbook, for definitions of "supply schedule" and "demand schedule."

With all due respect, the cited prior art does not teach **any** of the steps in claim 1 of the present invention: computing a demand schedule; computing a supply schedule; comparing the demand and supply schedules to produce a (single) current preferred return; and using the current preferred return for computing a (single) price." This failure of the cited prior art to teach the steps of the claimed invention is not surprising given that the cited prior art teaches the computerization of activities within the present broker/dealer market – not, as does the present invention, its replacement by a computerized auction market.

In ***Section (11) Response to Arguments*** the Examiner says that the Applicants arguments filed 3/4/03 have been fully considered but have not been found persuasive. However, the Examiner has essentially not substantively addressed major arguments, such as the absence of a proper reason to combine, etc.

The Examiner does state (parenthetical corrections added by the Applicant) that the "Applicant's objections include, 1) Computing a demand schedule for each of the instruments; 2) Computing (a supply) schedule for each of the instruments; 3) Computing (actually the step is Comparing) the schedules to produce a current preferred return for each of the corresponding instruments."

The Examiner contends that the above elements are disclosed in Broka (Col. 5, lines 20-57)(Col. 14, lines 60-65)(Col. 13, line 45- Col. 14, line 5).

The Board's attention is drawn to the sections relied upon by the Examiner: it is not there. In Col. 5, lines 20-57, Broka lays out the system overview of his invention. Nowhere in this cited reference do the words demand or supply appear, let alone the terms <u>demand schedule</u> or <u>supply schedule</u>. In this reference, Broka refers to functions performed by his invention, but he does not include Applicant's particularly claimed functions of <u>computing</u> or <u>comparing</u>. Therefore,

the Examiner has not met the statutory burden of proving that the prior art evidence includes the claim requirements.

In Col. 14, lines 60-65, Broka refers to the display of bid and ask prices. As the Applicant has discussed above, the existence a bid/ask pricing is contrary to the present invention in which demand and supply schedules are compared in order to produce a single current preferred return which in turn is used to compute a single current price. Therefore, this reference cited by the Examiner actually is evidence that Broka cannot teach the present invention because Broka is teaching a process that is inconsistent with, and thus teaches away from, the present invention. Indeed, the Examiner's proposed modification would also destroy the purpose of Broka by negating the need for it, i.e., putting the brokers and dealers of Broka out of work.

In Col. 14, line 45- Col. 14, 14 line 5, Broka discusses a dealer entering a quote into the system. Again, this proves that Broka cannot teach the present invention because Broka is teaching the computerization of market that uses dealers (market makers) rather than, as does the present invention, a market in which a computerized auction market replaces the market making function of dealers.

The Examiner continues, contending that "Further, Broka teaches demand schedules (bid/ask pricing)(Fig 10/11/17A/17B)(Col. 4, lines 52-58) and schedules/terms (Col. 5, lines 33-63) and comparing schedules/modifying quotes (Col. 5, lines 46-53) as well as entering, computing and comparing steps (Fig 7)(Fig 10).

As Applicant has discussed above, the Examiner's identification of bid/ask pricing with demand and supply schedules reflects the Examiner's failure to understand the present invention and its components and also demonstrates that the cited prior art does not and cannot teach the present invention. The Examiner goes on to further demonstrate a misunderstanding of the present invention by: 1) equating (demand and supply) schedules with the terms of the instruments; and 2) equating comparing (demand and supply) schedules with modifying quotes. Once again, the cited references do not contain the words demand or supply, let alone a teaching

or suggestion of the claimed demand schedule or supply schedule. Nor is there any reference to the particularly claimed steps of computing... or comparing..., let alone both.

The Examiner continues further by contending that "Lawrence teaches a preferred return (Fig 2/58) and a demand schedule and a preferred return (Fig 3/116/110/114) and a schedule (maturity) (Fig 6) as well a preferred return demand schedule (bid/ask/reoffer/calculates) (Fig 7)(Fig 8)."

Nowhere in the cited references does Lawrence teach the computing of a demand or supply schedule, let alone the comparing of same to produce a (single) current preferred return for each of the instruments. The Examiner does, however, continue to demonstrate a failure to understand the present invention by confusing a schedule (of what?) with the maturity of an instrument and confusing a preferred return demand schedule with bid/ask/reoffer/calculates. This is not statutory evidence of obviousness; this is evidence that the claimed invention has not been understood.

The Examiner then continues further, asserting that "Broka also teaches an order quantity and a face value (Fig 12/1220) and a time period (Fig 12/1250/1260)."

Neither of these assertions are relevant to the claim requirements. Teaching an order quantity and a face value is not related to the claimed computing of demand and supply schedules and then comparing said schedules to produce a (single) current preferred return for each instrument.

Continuing again, the Examiner states that "Lawrence further teaches generating a return on the preferred investments (Fig 9) as well as a face value (Fig 9)." Again, teaching an order quantity and a face value is not related to the statutory issue at hand of whether there is a teaching the claimed computing of demand and supply schedules and then comparing said schedules to produce a (single) current preferred return for each instrument.

Continuing further, the Examiner states that "Hawkins teaches a bid/ask, a price limit, a stop price and a capacity (demand and preferred return) (Fig 10/402/426/399) as well as a

demand (Fig 13/673) and schedule for each of the instruments (type and amount) (Fig 12/616/672)."

Once again, the Examiner is both: 1) demonstrating a failure to understand the present invention; and, 2) proving that the cited prior art does not teach the present invention. The existence of dealers, dealer capacity, and associated bid/ask pricing demonstrates that Hawkins is teaching a system that is fundamentally incompatible with the present invention. Nowhere does Hawkins teach the computing of demand and supply schedules. Therefore, Hawkins does not, and cannot, teach the comparing of said schedules to produce a (single) current preferred return for each instrument. Hawkins cannot teach any of this because his invention provides an improvement in the functioning of a broker/dealer market, not its replacement by a computerized auctions market of the present invention.

Finally, the Examiner asserts that "Hawkins teaches a dealing capacity (ability to reprice and produce preferred return) (Fig 11/399) and utilization of the SWIFT Financial Network and engages is real time trading (Col. 3 lines 26-Col. 4 line 63)."

By asserting that Hawkins teaches a dealing capacity, the Examiner is, in actuality, proving again that Hawkins does not, and cannot, teach the present invention because the present invention is inapposite to dealers and, therefore, no teaching of dealing capacity is relevant to the claimed invention. To the contrary, the notion of dealing capacity teaches away from the claimed invention. And the teaching of the utilization of the SWIFT financial network is not relevant to the statutory issue at hand, which is whether there is a prior art teaching of the computing of demand and supply schedules and then the comparing of said schedules to produce a (single) current preferred return for each instrument.

In conclusion, the Applicant respectfully notes that the Examiner has not refuted the arguments of the Applicant filed on 3/4/03. Instead, the Examiner has repeatedly:

1. With all due respect, demonstrated a failure to understand the present invention and its components; and,

2. Proven that the cited prior art does not, *and cannot*, teach the present invention.

And as to the obviousness rejection, while the Answer appears to essentially concede issues raised in the Brief, Section 2143 of the MPEP provides that "if the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims prima facie obvious. *In re Ratti*, 270 F.2d 810, 123 USPQ 349 (CCPA 1959) In this decision, the court reversed the rejection holding the "suggested combination of references would require a substantial reconstruction and redesign of the elements shown in [the primary reference] as well as a change in the basic principle under which the [primary reference] construction was designed to operate." 270 F.2d at 813, 123 USPQ at 352.).

Applying MPEP Sec. 2143 and *In re Ratti* to the instant case, all claims have been rejected based on art that not only does not teach claim elements (see Brief and above) but also based on a proposed modification that would change the principle of operation of the cited art. As above, the cited art teaches and advocates improvements to a technology that is contrary to and replaced by, the present invention. For example, the Examiner is proposing to modify Broka, Lawrence, and Hawkins to render them useless by unemploying the dealers/brokers they were intended to support, and thus most certainly "would require a substantial reconstruction and redesign of the elements shown in [the primary reference] as well as a change in the basic principle under which the [primary reference] construction was designed to operate."

The teachings are not sufficient to render the claims *prima facie* obvious pursuant to the requirements of 35 U.S.C. §103, the reason to combine is inadequate (i.e., the reason to combine is to teach (the claimed invention)see Brief), and the proposed modification is contradicted by, and would massively change the basic operating principle of, the cited art. Thus, the evidence is insufficient for statutory obviousness.

II. Conclusion

The rejection of each of Appellant's claims has not been shown to be *prima facie* obvious pursuant to the standards of 35 U.S.C. Sec. 103. No one would ever have thought of the claimed invention from the cited art, and indeed, one would have to discard the systems of the cited art to reach the whole idea of the present invention. Accordingly, and based on the evidence of record considered in accordance with the foregoing statutory requirements, the Final Rejection of the claims should be reversed.

APPLICANT CLAIMS SMALL ENTITY STATUS. The Commissioner is hereby authorized to charge any fees associated with the above-identified patent application or credit any overcharges to Deposit Account No. 50-0235.

Respectfully submitted,

Date: January 5, 2004

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Date: January 5, 2004

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PATENT

Paper No.

File: Newmrkt-P1-99

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Inventors	:	Anthony F. Herbst and Wayne F. Perg
Serial No.	:	09/280,244
Filed	:	March 29, 1999
For	:	DIGITAL COMPUTER SYSTEM AND METHODS FOR MANAGING A SYNTHETIC INDEX FUND
Group Art Unit	:	2162
Examiner	:	Retta, Y

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GROUP 3600

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and Trademarks
Washington, D.C. 20231

TRANSMITTAL LETTER

SIR:

Please enter the following enclosed documents in the above-identified patent application.

1. Reply Brief (in triplicate).

APPLICANT CLAIMS SMALL ENTITY STATUS. The Commissioner is hereby authorized to charge any fees associated with the above-identified patent application or credit any overcharges to Deposit Account No. 50-0235.

Please direct all correspondence to the undersigned at the address given below.

Respectfully submitted,

Date: 5 January 2004

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